

# 50 Years of Stewardship of the Nation's Climate Information

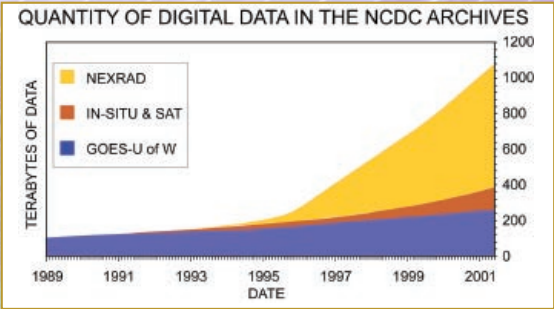


"The right weather data, the right climate information at the right time."

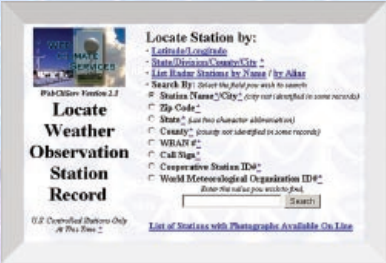
Data Archiving

## Digital Data Archive Reaches 1 Petabyte

The NCDC digital data archive reached a milestone in 2000 when it exceeded one petabyte or 1068 terabytes. All incoming digital data, as well as those data being migrated from old media, are now stored on a robotics mass storage system. Electronically delivered radar and satellite data are automatically archived to the robotics system and inventoried within minutes of receipt. At the end of 2000, NCDC had over 25 terabytes of data on-line and accessible to users.



Customer Service



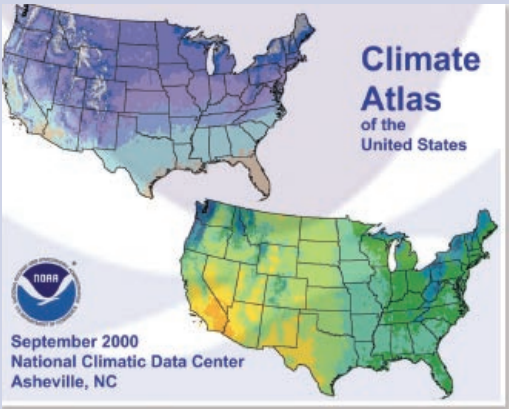
## Enhanced Data Access

NCDC upgraded its Web Climate Services (WebCIServ) system to improve access to station related data. Improvements included a more organized data section, inclusion of station product

inventories, and inclusion of additional on-line and off-line station related products. The data section was divided into form type data, graphs and images, CD-ROMs, and digital ASCII files. Additional products from the On-line Store were added including CD-ROMs and miscellaneous publications that contain data for the selected station. With increased use of on-line web access, the timeliness of ordering and receiving data and products was reduced from five days in 1995 to less than one day in 2000. NCDC has shown a dramatic shift to on-line ordering of climate data and products.



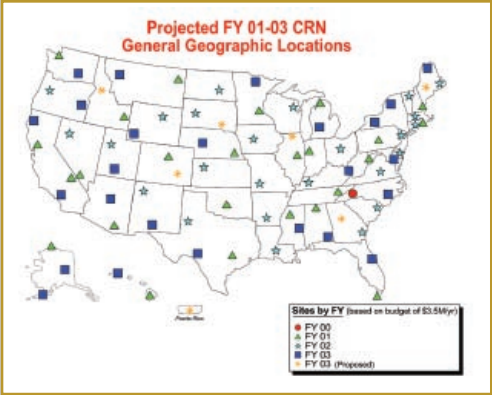
**The Climate Atlas of the US** One of the primary missions of NCDC is to develop climate products such as climate normals and atlases. The atlas contains 737 maps that show the spatial distribution for a variety of temperature, precipitation, snow, and other miscellaneous parameters for the contiguous U.S. This atlas replaces the hard copy *Climatic Atlas of the United States* published in 1968. The new atlas was developed using innovative technology and easy to use Geographic Information Systems (GIS) to generate the maps objectively. Maps for Hawaii and Alaska will be available on CD-ROM in the spring of 2002.



CRN

## The Climate Reference Network

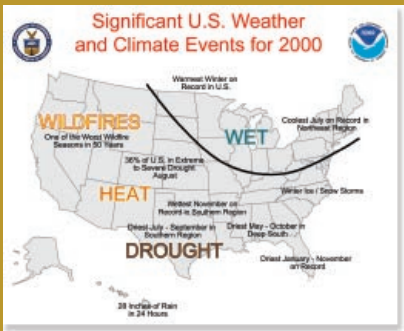
As part of a new National Oceanic and Atmospheric Administration (NOAA) climate program, NCDC initiated the Climate Reference Network (CRN). CRN is a nationwide network of climate monitoring stations, collecting real-time high quality temperature and precipitation data, along with other climate elements.



The primary goal of CRN is to provide future long-term homogeneous observations of surface air temperature and precipitation that can be coupled to past long-term observations for the detection and attribution of present and future climate change. The data represents one of three critical NOAA land surface observing networks.

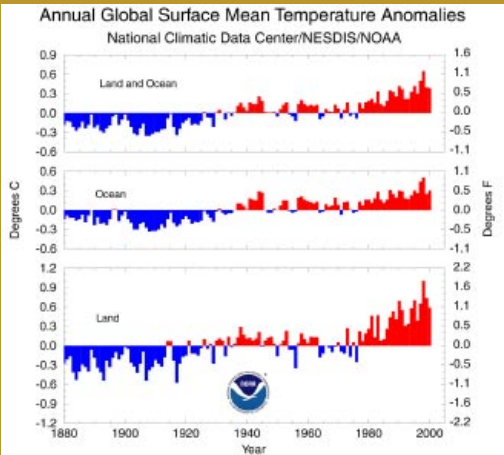
Climate Monitoring

**Products** NCDC developed new climate monitoring products with an added focus on providing more timely data analyses. NCDC automated many of its climate monitoring processes. The results are now available on the NCDC web site and provide easy access to current and historical U.S. climate data on a national, regional, statewide, and city basis. Weekly temperature, precipitation, and drought information are also available to assist in the interagency development of Drought Monitoring products. The latest efforts in monitoring include updated indices that are relevant to the nation's economy and quality of life.



Climate Research & Assessments

**Scientific Leadership** NCDC researchers provide scientific leadership, scholarly research, data and information to the scientific community and general public. This is accomplished by performing research related to observed climate monitoring and change, by providing high-quality research datasets and by participating in major climate assessments such as those completed by the IPCC, the USGCRP, and the National Research Council.



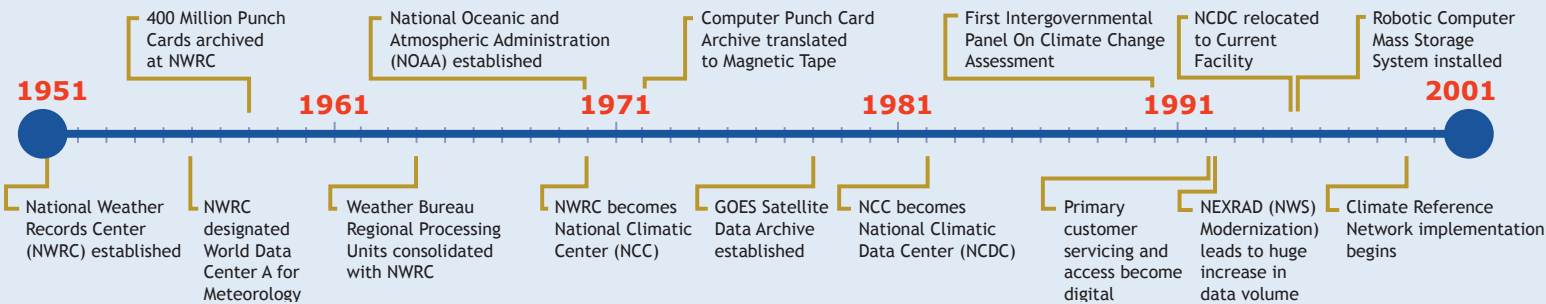


# Celebrating Fifty Years of Excellence

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## History

- No organized system existed in the United States to take weather observations until the 19th Century. Congress acted in 1891 with a charge to archive and distribute... such meteorological observations as may be necessary to establish and record the climatic condition of the United States...
- In the early 20th Century, the Civilian Weather Service inherited an operating climatological service made up of the U.S. Signal Service, the Department of Agriculture, and the Cooperative Observing Networks volunteers.
- The Federal Records Act passed by Congress in 1950 established the National Weather Records Center (now the NCDC) as the official Federal Records Center for U.S. weather records. In September 1951, the Center began operations in downtown Asheville, North Carolina.
- In the subsequent half-century, the National Climatic Data Center has met the challenge of serving as the world's largest repository of environmental data, (98% of NOAA's data).
- The digital archive contained over one petabyte (1024 terabytes) in 2001, and the number of offline and web users annually exceeds three million.
- The center is the "Nation's "Scorekeeper" for climate and severe weather events, and is a "national resource" for weather and climate information. Decision makers whether the general public seeking a retirement location, a business looking to expand, a multi-national corporation investing in new technologies, or a Federal, state or local agency responding to an extreme climate event. The efficiency of the economy increases because of improved decision making based on climatic data.
- NCDC produces research quality data sets and performs global and national climate monitoring activities.
- NCDC is implementing the Climate Reference Network (CRN) to provide high quality observations that can be coupled to past term observations to study climate and identify trends.